

**UNITED STATES DEPARTMENT OF COMMERCE****Pat nt and Trademark Office**

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*T.D*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/402,674	10/08/99	KOISTINEN	J 365-428PCT

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EXAMINER

EINSMANN, M

ART UNIT

PAPER NUMBER

1751

DATE MAILED:

12/06/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/402,674

Applicant(s)

Koistinen

Examiner

Margaret Einsmann

Group Art Unit

1751



☒ Responsive to communication(s) filed on Oct 8, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above, claim(s) 8-15 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-7 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☒ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4 and 6

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### **DETAILED ACTION**

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-9, drawn to a refrigerant.

Group II, claim(s) 10-15, drawn to complex esters .

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The refrigerants of group I require that the mixture of esters contain 3-hydroxy-2,2-dimethyl-propyl-3-hydroxy-2,2-dimethylpropionate as well as an additional ester selected from the group specifically named in claim 1. The complex esters of the group II claims comprise 3-hydroxy-2,2-dimethyl-propyl-3-hydroxy-2,2-dimethylpropionate but do not require the second named ester component of the Group I claims. Additionally the group I claims require a fluorocarbon refrigerant; the group II claims are directed to a lubricant and use of said esters as a lubricant. During a telephone conversation with Leonard R. Svensson on November 20, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office

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action. Claims 10-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

#### ***Claim Objections***

4. Claim 3 is objected to because of the following informalities: There needs to be a space between "claim" and "2" on line 1. Appropriate correction is required.

5. Claims 8 and 9 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claims. Presently claims 7, 8 and 9 are all multiple dependent. See MPEP § 608.01(n). Accordingly, the claims 8 and 9 have not been further treated on the merits.

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "an ester of..." on line 3 of claim 1 infers that there is more than one ester of 3-hydroxy-2,2-dimethyl-propyl-3-hydroxy-2,2-dimethylpropionate" when that formula is specific to one ester. The examiner suggests that the words "an ester of" be deleted. On lines 7 and 8, how can said ester (3-hydroxy-2,2-dimethyl-propyl-3-hydroxy-2,2-dimethylpropionate) be the at least 50% of the polyol residue when the ester is no longer a polyol. Clarification is requested.

In the second option of claim 1, it appears that the term "ester" needs to be inserted after "1,3-propanediol" on line 10 since it appears that the ratio of the two esters needs to be stated.

The third option in claim 1 is indefinite for failing to define the molar ratio of the esters. Note that the molar ratio is defined in the first two options. In claim 2, where is "in situ?" There is no basis in claim 1 for this term. In claim 3, the term "such as" renders the claim indefinite. The terms after "such as" should be made the subject of another dependent claim.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakahara et al., US 5,374,366. Example 10 in column 9 anticipates these claims. Hydroxypivalic acid neopentyl glycol monoester, the first reactant mentioned in this example, is also named 3-hydroxy-2,2-dimethyl-propyl-3-hydroxy-2,2-dimethylpropionate ester. This is applicant's first claimed component. It is reacted with a mixture of neopentylglycol and succinic acid, caproic acid and 2-ethylhexanoic acid. As can be seen, the reaction mixture contains both linear and branched carboxylic acids reading on claim 3; 2-ethylhexanoic acid reading on claim 4; a mixture of mono- and dibasic carboxylic acids, reading on claims 5 and 6. The dibasic acid is succinic acid, thus meeting the limit of applicant's claim 7. The product of this reaction (J) was mixed with HFC 134a (Col 12 lines 53 et seq) and tested for miscibility.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara et al. Nakahara disclose compositions comprising lubricating oils synthesized from esters

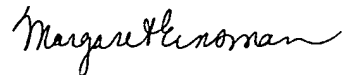
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combined with various polyols and linear and branched mono- and di- carboxylic acids, said oils mixed with fluorocarbon refrigerants. The glycols and carboxylic acids used are listed in columns 3 and 4 and include nearly all claimed. See also col 1 line 46 to col 2 line 48.

It would have been obvious to the skilled artisan that all of the mixed ester oils claimed fall within the disclosure of this reference, since patentees state that the ester oils can be synthesized from many, if not all of the individual components claimed.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret Einsmann whose telephone number is (703) 308-3826. The examiner can normally be reached on Monday to Thursday and alternate Fridays from 7:00 A.M. to 4:30 P.M. The fax phone number for this Technology Center is (703) 305-3599

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



MARGARET EINSMANN

PRIMARY EXAMINER 1751

December 4, 2000